

## PATENT COOPERATION TREATY

From the:  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

Davies Collison Cave  
Level 15  
1 Nicholson Street  
MELBOURNE VIC 3000

PCT

NOTIFICATION OF TRANSMITTAL OF  
INTERNATIONAL PRELIMINARY EXAMINATION  
REPORT

(PCT Rule 71.1) GP

Date of mailing  
day/month/year

20 JAN 2005

Applicant's or agent's file reference  
12322910/G

## IMPORTANT NOTIFICATION

International Application No.  
PCT/AU2003/001211

International Filing Date  
16 September 2003

Priority Date  
16 September 2002

Applicant

OLLIN SUSTAINABLE TECHNOLOGIES PTY.LTD. et al

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translations to those Offices.
4. **REMINDER**  
  
The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).  
  
Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.  
  
For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide

Name and mailing address of the IPEA/AU

AUSTRALIAN PATENT OFFICE  
PO BOX 200, WODEN ACT 2606, AUSTRALIA  
E-mail address: pct@ipaustalia.gov.au  
Facsimile No. (02) 6285 3929

Authorized officer

MR KIM WELLENS  
Telephone No. (02) 6283 2162

BEST AVAILABLE COPY

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

REC'D 25 JAN 2005

WIPO PCT

Applicant's or agent's file reference 12322910/G	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. <b>PCT/AU2003/001211</b>	International Filing Date (day/month/year) 16 September 2003	Priority Date (day/month/year) 16 September 2002
International Patent Classification (IPC) or national classification and IPC Int. Cl. <sup>7</sup> F24D 17/00; F24H 1/18, 1/20; F24J 2/04		
Applicant OLLIN SUSTAINABLE TECHNOLOGIES PTY.LTD. et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheet(s).

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☒ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 6 April 2004	Date of completion of the report 19 January 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  <b>MR KIM WELLENS</b> Telephone No. (02) 6283 2162

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/AU2003/001211

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed.
- ☐ the description, pages , as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the claims, pages , as originally filed,  
pages , as amended (together with any statement) under Article 19,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the drawings, pages , as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the sequence listing part of the description:  
pages , as originally filed  
pages , filed with the demand  
pages , received on with the letter of

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

**IV. Lack of unity of invention**

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☒ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

The claims do not relate to one invention only (or to a group of inventions so linked as to form a single general inventive concept). In assessing whether there is more than one invention claimed, I have given consideration to those features, which can be considered to be "special technical features". These are features that potentially distinguish the claimed combination of features from the prior art. Where different claims have different special technical features they define different inventions. I have found claims having different special technical features as follows:

- (1) Claims 1- 30 are directed at a storage tank hot water apparatus, having an immersed burner within a housing, with water passages through the housing. It is considered that the immersed burner within a housing, with water passages through the housing comprises a first special technical feature.
- (2) Claims 31- 34 are directed at a gas- solar hot water system having solar collector panels including a flu gas chamber therein. It is considered that solar collector panels including a flu gas chamber therein comprise a second special technical feature.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☐ all parts.
- ☒ the parts relating to claims Nos. 1- 30

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims 3- 30	YES
	Claims 1- 2	NO
Inventive step (IS)	Claims 3- 27	YES
	Claims 1- 2, 28- 30	NO
Industrial applicability (IA)	Claims 1- 30	YES
	Claims	NO

**2. Citations and explanations (Rule 70.7)**

D1- EP 580418 A1 (Maruyama N.) 26 January 1994  
D2- WO 85/02899 (Akerman D.), 4 July 1985  
D3- FR 2724218 A1 (Fagor S Coop LTDA et al.), 8 March 1996  
D4- US 4677939 (Henault et al.), 7 July 1987  
D5- Derwent Abstract Accession No. 2000- 036862/03, Class Q74, SE 9801322 A (Stocksbroverken AB), 17 October 1999  
D6- Derwent Abstract Accession No. 93- 131824/16, Class Q74, NL 910501 A (Smith Water Prod Co BV), 1 April 1993  
D7- DE 3239654 A1 (Jauch E), 3 May 1984  
D8- Derwent Abstract Accession No. 97-426967/40, Class X15, DE 29711263 U1 (Hinrichs K), 28 August 1997

**Novelty (N) and Inventive Step (IS) claims 1- 2**

Claims 1- 2 relate to a water heating apparatus, having a gas burner assembly in the water tank, having a burner and a housing, with at least one passage through the housing, taking advantage of the convection current formed within the tank. Documents D1 - D3 disclose all of these features. It is considered that a convection current would naturally form when water is heated in a tank and the configurations disclosed would inherently allow convection currents in the water to flow through the passages, thus taking advantage of the convection currents. Consequently claims 1 and 2 are not novel and do not involve an inventive step. Furthermore document D4 explicitly discloses convection currents being formed within a tank. Therefore when the teachings of D1- D3 are combined with those of D4 in an obvious manner, all of the features are explicitly disclosed. Consequently claims 1- 2 do not involve an inventive step.

**Inventive Step (IS) claims 28- 30**

In addition to what has been defined in claims 1 and 2, claims 28- 30 define the addition of a solar panel being connected with the gas, water heating apparatus.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
**PCT/AU2003/001211**

## VI. Certain documents cited

### 1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date ( valid claim) (day/month/year)
P X, Y JP 2003166754	13 June 2003	29 November 2001	29 November 2001
The document discloses all of the features of claims 1 and 2.			

### 2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

**Continuation of V**

Documents D5- D8 all disclose the use of solar panels in conjunction with a gas, water heating apparatus. Therefore the combination of teachings of documents D1- D3 and D5- D8 in an obvious manner discloses all of the features of the claims. Consequently claims 28- 30 do not involve an inventive step.

**Novelty (N) and Inventive Step (IS) claims 3- 27**

None of the documents either individually or in obvious combination disclose all of the features of the claims. In particular none of the documents disclose a housing having the passages defined by tubular elements extending from the bottom to the top of the housing. Consequently claims 3- 27 are novel and involve an inventive step.